

Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed February 25, 2004.

Claims 1-51, 57-60, and 91-98 were pending in the Application prior to the outstanding Office Action. In the Office Action, the Examiner allowed claims 10-11, 13-19, 22-23, 29, 32-33, 40-46, 49-51, and 57-60, rejected claims 1-9, 12, 20-21, 24-28, 30-31, 34-39, 47-48, and 91-98. The present Response cancels claims 47 and 48, leaving for the Examiner's present consideration claims 1-9, 12, 20, 21, 24-28, 30, 31, 34-39, and 91-98. Reconsideration of the rejections is requested.

I. REJECTION UNDER 35 U.S.C. §103(A) OVER *KOYANAGI* IN VIEW OF *DUERIG, ET AL.* (U.S. PAT. NO. 4,831,614) AND *KLEY* (U.S. PAT. NO. 6,339,217)

Claims 1-9, 12, 24, 25, 30, 31, 34-36, 38, 39, 47, 48, and 91-98

The Examiner rejected Claims 1-9, 12, 24, 25, 30, 31, 34-36, 39, 39, 47, 48 and 91-98 under 35 U.S.C. §103(a) as unpatentable over *Koyanagi* in view of *Duerig* and *Kley*. The Applicant requests cancellation of Claims 47 and 48. The Applicant respectfully traverses the rejection of Claims 1-9, 12, 24, 25, 30, 31, 34-36, 38, 39 and 91-98.

It should be pointed out that on page 7, the Examiner describes *Koyanagi* as not teaching "(c) as in claim 1, each of the at least one fine tip portion is adapted to be independently actuated toward the media surface." See OA page 7, lines 13-15. However, the After Final (AF) Response submitted by fax on August 13, 18 and 22 and entered by the Examiner amended Claim 1 to eliminate this feature (repeated submissions correspond to proposed claims (August 13), submitted final response (August 18) and resubmitted final response per Examiner request (August 22)).

The Examiner states that *Koyangi* fails to teach or suggest "(a) as in claim 1, the moveable media having a first substrate comprising silicon dioxide...(d) as in claim 1, the moveable platform having a second

substrate comprising silicon dioxide.” The Applicant respectfully agrees. The Examiner further states that *Kley* teaches “(a) a moveable platform 132 having a second substrate 308 comprising silicon dioxide (Fig. 14; column 33, lines 38-43).” See OA page 8, lines 2-4. The Applicant respectfully disagrees. Figure 14 of *Kley* illustrates a tip 132 connected with a cantilever 130, not a platform. As described explicitly in *Kley*, “referring to FIG. 14, the bulk silicon portion 306 of the tip 132 is doped to be N or P type and then oxidized so as to have a thick silicon dioxide layer 308.” See col. 33, lines 38-44. Oxide is grown on a portion of a *tip*. Nowhere is a *platform* described. A tip is not a platform. Further, any such interpretation of a tip as a platform is incongruous with the further feature recited in Claim 1 of “a plurality of tips connected with said moveable read/write platform.”

Nowhere does *Kley* teach or suggest “a moveable read/write platform having a second substrate comprising silicon dioxide” as recited in Claim 1. *Duerig* fails to remedy this deficiency. Referring to Figure 4, *Duerig* describes a read/write platform as “a transducer array 10...all cantilever beams 13 in the array extend across a cavity 14 machined into a substrate 15, preferably of silicon or gallium arsenide, on which array 10 is built.” See col. 4, lines 10-16. Nowhere does *Duerig* teach or suggest “a moveable read/write platform having a second substrate comprising silicon dioxide” as recited in Claim 1.

In order to render a claim obvious under 35 U.S.C. §103(a), the cited references must teach or suggest all of the features of the claim. The cited references fail to teach or suggest all of the features of Claim 1, because they fail to teach or suggest “a moveable read/write platform having a second substrate comprising silicon dioxide” as recited in Claim 1. Since *Koyanagi* in view of *Duereg* and *Kley* fails to teach or suggest all of the features of Claim 1, *Koyanagi* in view of *Duereg* and *Kley* cannot render Claim 1 obvious under 35 U.S.C. §103(a). Dependent claims have at least the features of the independent claim from which they ultimately depend; therefore, *Koyanagi* in view of *Duereg* and *Kley* cannot render dependent

claims 2-9, 12, 24, 25, 30, 31, 34-36, 38 and 39 (which ultimately depend from Claim 1) obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

The Examiner further states that Claims 47 and 48 are “drawn to the method of using the corresponding apparatus claimed in Claims 1 and 34-36. Therefore, method claims 47 and 48 correspond to apparatus claims 1 and 34-36 are rejected for the same reasons of obviousness as used above.” See page 9, item 3. The Applicants respectfully disagree with the rationale for this rejection. In order to properly render a claim obvious under 35 U.S.C. §103(a), a cited reference alone or in view of other cited references must teach or suggest all of the features of the claim itself. However, in order to further prosecution, the Applicant respectfully requests cancellation of Claims 47 and 48. The Applicant will seek to pursue such claims in a continuation application.

The Examiner further states that “Claim 91 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.” See OA page 9, item 4. For the reasons given above with regard to Claim 1, the Applicant argues that *Koyanagi* in view of *Duerig* and *Kley* fails to teach or suggest all of the features of Claim 91, and therefore cannot render Claim 91 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

The Examiner further states that “Claim 92 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.” See OA page 10, item 5. For the reasons given above with regard to Claim 1, the Applicant argues that *Koyanagi* in view of *Duerig* and *Kley* fails to teach or suggest all of the features of Claim 92, and therefore cannot render Claim 92 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

The Examiner further states that “Claim 93 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.” See OA page 11, item 6. For the reasons given above with regard to Claim 1, the Applicant argues that *Koyanagi* in view of *Duerig* and *Kley* fails to teach

or suggest all of the features of Claim 93, and therefore cannot render Claim 93 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

The Examiner further states that “Claim 94 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.” See OA page 12, item 7. For the reasons given above with regard to Claim 1, the Applicant argues that *Koyanagi* in view of *Duerig* and *Kley* fails to teach or suggest all of the features of Claim 94, and therefore cannot render Claim 94 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

The Examiner further states that “Claim 95 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.” See OA page 13, item 8. For the reasons given above with regard to Claim 1, the Applicant argues that *Koyanagi* in view of *Duerig* and *Kley* fails to teach or suggest all of the features of Claim 95, and therefore cannot render Claim 95 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

The Examiner further states that “Claim 96-98 have limitations similar to those treated in the above rejection, and are met by the references as discussed above.” See OA page 14, item 9. For the reasons given above with regard to Claim 1, the Applicant argues that *Koyanagi* in view of *Duerig* and *Kley* fails to teach or suggest all of the features of Claim 96, and therefore cannot render Claim 96 obvious under 35 U.S.C. §103(a). Dependent claims have at least the features of the independent claim from which they ultimately depend; therefore, *Koyanagi* in view of *Duerig* and *Kley* cannot render dependent Claims 97 and 98 (which ultimately depend from Claim 96) obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

II. REJECTION UNDER 35 U.S.C. §103(A) OVER *KOYANAGI* IN VIEW OF *DUERIG* AND *KLEY* AND FURTHER IN VIEW OF *ADDERTON, ET AL.* (U.S. PAT. NO. 6,196,061)

Claims 20 and 21

The Examiner rejected Claims 20 and 21 under 35 U.S.C. §103(a) as unpatentable over *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Adderton*. The Applicant respectfully traverses the rejection.

The Examiner states that “Claims 20 and 21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Koyanagi et al.*...in view of *Duerig*...in view of *Kley*...and further in view of *Adderton*...*Koyanagi* teaches a memory apparatus very similar to that of the present invention.” Dependent claims have at least the features of the independent claim from which they ultimately depend. Claims 20 and 21 ultimately depend from Claim 1; therefore, for the reasons given above in regard to Claim 1, *Koyanagi* in view of *Duerig* and *Kley* cannot render dependent Claims 20 and 21 obvious under 35 U.S.C. §103(a). *Adderton* fails to remedy this deficiency. Referring to Figure 3, *Adderton* describes “first and second cantilever beams 32 and 34 are each fixed at one end 36, 38, respectively, to a cantilever substrate 40 and are free to deflect at a corresponding opposite end 42, 44, respectively” See col. 7, lines 30-35. Referring to Figure 7, *Adderton* describes “cantilever 161 extends outwardly from a rigid die/substrate 164 that is used for handling and mounting the cantilever *into the microscope*” (Emphasis added). See col. 10, lines 28-33. Nowhere does *Adderton* teach or suggest “a moveable read/write platform having a second substrate comprising silicon dioxide” as recited in Claim 1.

Since *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Adderton* fail to teach or suggest all of the features of Claim 1, from which Claims 20 and 21 ultimately depend, *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Adderton* cannot render dependent Claims 20 and 21 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

III. REJECTION UNDER 35 U.S.C. §103(A) OVER *KOYANAGI* IN VIEW OF *DUERIG* AND *KLEY* AND FURTHER IN VIEW OF *MAMIN*

Claims 26 and 27

The Examiner rejected Claims 26 and 27 under 35 U.S.C. §103(a) as unpatentable over *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Mamin*. The Applicant respectfully traverses the rejection.

The Examiner states that “Claims 26 and 27 are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Koyanagi*....in view of *Duerig*...in view of *Kley*...and further in view of *Mamin*... *Koyanagi* in view of *Duerig* et al. and *Kley* teach a memory apparatus very similar to that of the present invention.” Dependent claims have at least the features of the independent claim from which they ultimately depend. Claims 26 and 27 ultimately depend from Claim 1; therefore, for the reasons given above in regard to Claim 1, *Koyanagi* in view of *Duerig* and *Kley* cannot render dependent Claims 26 and 27 obvious under 35 U.S.C. §103(a). *Mamin* fails to remedy this deficiency. Referring to Figure 5, *Mamin* describes a “cantilever base 20 is glued to the slanted flat 206. The cantilever 23 with stylus 19 on its free end is an extension of cantilever base 20.” See, col. 6, lines 64-66. Nowhere does *Mamin* teach or suggest “a moveable read/write platform having a second substrate comprising silicon dioxide” as recited in Claim 1.

Since *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Mamin* fail to teach or suggest all of the features of Claim 1, from which Claims 26 and 27 ultimately depend, *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Mamin* cannot render dependent Claims 26 and 27 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

IV. REJECTION UNDER 35 U.S.C. §103(A) OVER *KOYANAGI* IN VIEW OF *DUERIG* AND *KLEY* AND FURTHER IN VIEW OF *MIYAZAKI, ET AL.* (U.S. PAT. NO. 5,412,597)

Claim 28

The Examiner rejected Claim 28 under 35 U.S.C. §103(a) as unpatentable over *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Miyazaki*. The Applicant respectfully traverses the rejection.

The Examiner states that “Claim 28 is rejected under 35 U.S.C. 103 (a) as being unpatentable over *Koyanagi*....in view of *Duerig*...in view of *Kley*...and further in view of *Miyazaki*... *Koyanagi* in view of *Duerig* and *Kley* teach a memory apparatus very similar to that of the present invention.” Dependent claims have at least the features of the independent claim from which they ultimately depend. Claim 28 ultimately depends from Claim 1; therefore, for the reasons given above in regard to Claim 1, *Koyanagi* in view of *Duerig* and *Kley* cannot render dependent Claim 28 obvious under 35 U.S.C. §103(a). *Miyazaki* fails to remedy this deficiency. Referring to Figure 16, *Miyazaki* describes “cantilever units 131, 132, and 133 are formed on a silicon substrate 140.” See col. 19, lines 39-41. Nowhere does *Miyazaki* teach or suggest “a moveable read/write platform having a second substrate comprising silicon dioxide” as recited in Claim 1.

Since *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Miyazaki* fail to teach or suggest all of the features of Claim 1, from which Claim 28 ultimately depends, *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Miyazaki* cannot render dependent Claim 28 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.

V. REJECTION UNDER 35 U.S.C. §103(A) OVER *KOYANAGI* IN VIEW OF *DUERIG* AND *KLEY* AND FURTHER IN VIEW OF *TANAKA* (U.S. PAT. NO. 5,808,973)

Claim 37

The Examiner rejected Claim 37 under 35 U.S.C. §103(a) as unpatentable over *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Tanaka*. The Applicant respectfully traverses the rejection.

The Examiner states that "Claim 28 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Koyanagi....in view of Duerig...in view of Kley...and further in view of Tanaka... Koyanagi in view of Duerig and Kley teach a memory apparatus very similar to that of the present invention." Dependent claims have at least the features of the independent claim from which they ultimately depend. Claim 37 ultimately depends from Claim 1; therefore, for the reasons given above in regard to Claim 1, *Koyanagi* in view of *Duerig* and *Kley* cannot render dependent Claim 37 obvious under 35 U.S.C. §103(a). *Tanaka* fails to remedy this deficiency. Referring to Fig. 1, *Tanaka* describes a magnetic recording head 2 positioned over a rotating medium 1. Nowhere does *Tanaka* teach or suggest "a moveable read/write platform having a second substrate comprising silicon dioxide" as recited in Claim 1.

Since *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Tanaka* fail to teach or suggest all of the features of Claim 1, from which Claim 37 ultimately depends, *Koyanagi* in view of *Duerig* and *Kley* and further in view of *Tanaka* cannot render dependent Claim 37 obvious under 35 U.S.C. §103(a). Accordingly, the Applicant respectfully requests the withdrawal of this rejection.


VI. CONCLUSION

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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